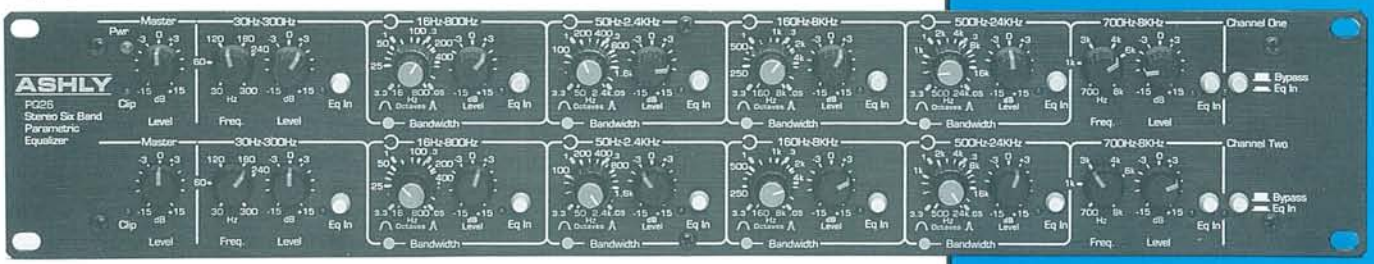
ASHLY

Parametric Equalizers

model PQ-16
model PQ-26

Five-Year Worry-Free Warranty

PQ-16



PQ-26

The Ashly **PQ-16** and **PQ-26** Parametric Equalizers offer complete equalization flexibility. Compared to graphic equalizers that preset center frequencies and bandwidth, the Ashly PQ-Series provides control that can tune over a 5.5 octave range, with variable bandwidth from 3.3 to 1/20 octave.

Some applications include: shaping the overall response of a sound system to improve response, feedback control, instrument tone control, speaker or room resonance problems, vocal and dialogue equalization, broadcast announcer voice enhancement, special effects, or any application where complete equalization control is necessary.

At the heart of the Ashly PQ-Series is our unique bandpass filter circuit. Basically a "state variable" type, this filter is trimmed and optimized to provide excellent transient response and a wide range bandwidth adjustment. Each filter can be tuned over a 50:1 frequency range (about 5.5 octaves) and a 70:1 bandwidth range with no more than a 2dB amplitude error at center frequency. At its sharpest setting, the filter has a "Q" of about 35 and generates a response curve with 3dB points only 1/20 octave apart, making feedback control possible with no audible side effects.

Tunable low and high frequency shelving filters are also provided to trim frequency extremes. Each filter is placed in the feedback loop of a summing amplifier to produce the desired frequency response. Since a separate summing amplifier is used for each band, no interaction between bands occurs. A hefty output stage is provided so that low impedance loads and long cable runs may be driven with optimal results.

The single channel **PQ-16** and the stereo **PQ-26** (also usable as 12-band mono) Parametric Equalizers are covered by Ashly's exclusive five-year worry-free warranty.

Tunable Low and High Frequency Shelving Filters

Center Frequency Tunable over a 5.6 Octave Range

Adjustable Bandwidth from 3 1/3 to 1/20 of an Octave

Full 20dB Headroom

True Reciprocal Curves

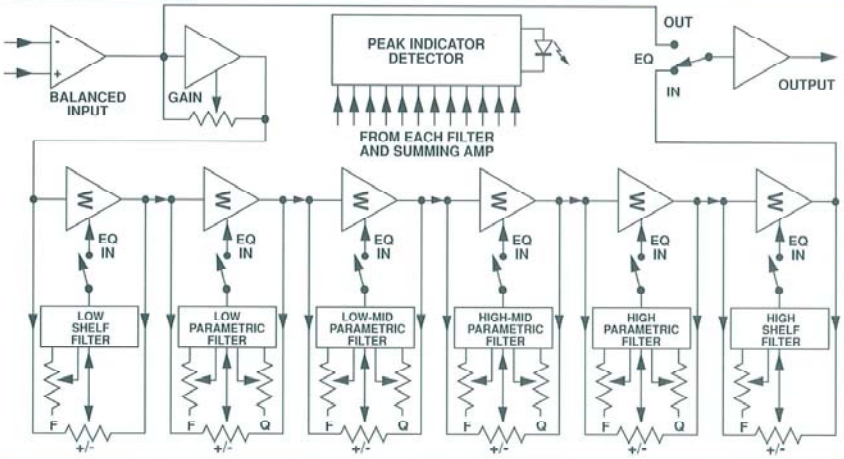
Optional 12-Band Mono Operation on PQ-26

Master and Individual Band In/Out Bypass Switching

Specifications

CONTROLS	
Master Gain:	±15dB
Master Defeat Switch:	YES
Per Band Amplitude:	±15dB
Per Band Defeat Switch:	YES
PEAKING FREQUENCY	
Low:	16Hz-800Hz
Low Mid:	50Hz-2.4kHz
Hi Mid:	160Hz-8kHz
High:	500Hz-24kHz
Bandwidth:	3 1/3 - 1/20 octave
SHELVING FREQUENCY	
Low:	30-300Hz
High:	700Hz-8kHz
Shelving Range:	±15dB
Input Impedance:	10kΩ active balanced bridging
Output Impedance:	200Ω, term. w/600Ω or more
Maximum Input Level:	+20dBm(+5dBm at max boost, full sharp)
Frequency Response:	20Hz-20kHz, ±.5dB
Distortion:	<.05%THD, +10dBV 20Hz 20kHz
Hum and Noise:	-87dBV(EQ in), -95dBV(EQ out)
Power Requirements:	110-125VAC, 50-60Hz, 5W
Size:	PQ-26: 19"L x 3.5"H x 6"D PQ-16: 19"L x 1.75"H x 6"D
Shipping Weight:	PQ-26: 10 lbs PQ-16: 8 lbs

Block Diagram



Architect's Specification

Ashly PQ-26

The unit shall be a dual channel parametric equalizer, capable of being center-frequency-tunable over a 5.5 octave range. The unit shall have two channels of 4 bands of equalization adjustable as follows: Low: 16Hz-800Hz, Low Mid: 50Hz-2.4kHz, High Mid: 160Hz-8kHz, and High: 500Hz-24kHz. Each band shall have a bandwidth adjustable between 3 1/3 octave and 1/20 octave. The frequency response shall be 20Hz-20kHz, ±0.5dB. The distortion shall not exceed <0.05% THD, +10dBV, 20Hz-20kHz. Hum and noise shall be below -87dBV with the EQ engaged and -95dBV with the EQ out. The unit shall offer a per band amplitude adjustment of ±15dB as well as a master gain adjustment of ±15 dB. The unit shall also include low frequency and high frequency shelving covering the range of 30-300Hz and 700Hz to 8kHz respectively. The range of the shelving equalization shall be ±15dB. The input impedance of the unit shall be 10kΩ active balanced bridging, and the output impedance shall be 200Ω, terminated with 600Ω or more. The maximum in/out level shall be +20dBm or +5dBm at maximum boost, full sharp. The unit shall be designed for mounting in a standard EIA 19" rack (19"L x 3.5"H x 6"D) and shall have a shipping weight of 10lbs . The unit shall operate at 115VAC ±5%, 50-60Hz. The unit shall be a PQ-26 Parametric Equalizer manufactured by Ashly Audio Inc. No other unit shall be acceptable unless data submitted from an independent test laboratory verifies that the above combined size/performance specs are met.

Ashly PQ-16

The unit shall be a single channel parametric equalizer, capable of being center-frequency-tunable over a 5.5 octave range. The unit shall have a single channel of 4 bands of equalization adjustable as follows: Low: 16Hz-800Hz, Low Mid: 50Hz-2.4kHz, High Mid: 160Hz-8kHz, and High: 500Hz-24kHz. Each band shall have a bandwidth adjustable between 3 1/3 octave and 1/20 octave. The frequency response shall be 20Hz-20kHz, ±0.5dB. The distortion shall not exceed <0.05% THD, +10dBV, 20Hz-20kHz. Hum and noise shall be below -87dBV with the EQ engaged and -95dBV with the EQ out. The unit shall offer a per band amplitude adjustment of ±15dB as well as a master gain adjustment of ±15 dB. The unit shall also include low frequency and high frequency shelving covering the range of 30-300Hz and 700Hz to 8kHz respectively. The range of the shelving equalization shall be ±15dB. The input impedance of the unit shall be 10kΩ active balanced bridging, and the output impedance shall be 200Ω, terminated with 600Ω or more. The maximum in/out level shall be +20dBm or +5dBm at maximum boost, full sharp. The unit shall be designed for mounting in a standard EIA 19" rack (19"L x 1.75"H x 6"D) and shall have a shipping weight of 8lbs. The unit shall operate at 115VAC ±5%, 50-60Hz. The unit shall be a model PQ-16 Parametric Equalizer manufactured by Ashly Audio Inc. No other unit shall be acceptable unless data submitted from an independent test laboratory verifies that the above combined size/performance specs are met.

Ashly Audio Inc.

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